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Title: Recent Weather & Climate Relating to the Wildfires

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Recent Weather & Climate Relating to the Wildfires

Meteorology Program

Team Leader:	Margie Stockton
Meteorologist:	David Bruggeman
Meteorologist:	Ken Waight
Data Steward:	Melissa Coronado
Instrument Technician:	Greg Stanton
Instrument Technician:	Jerome Quintana

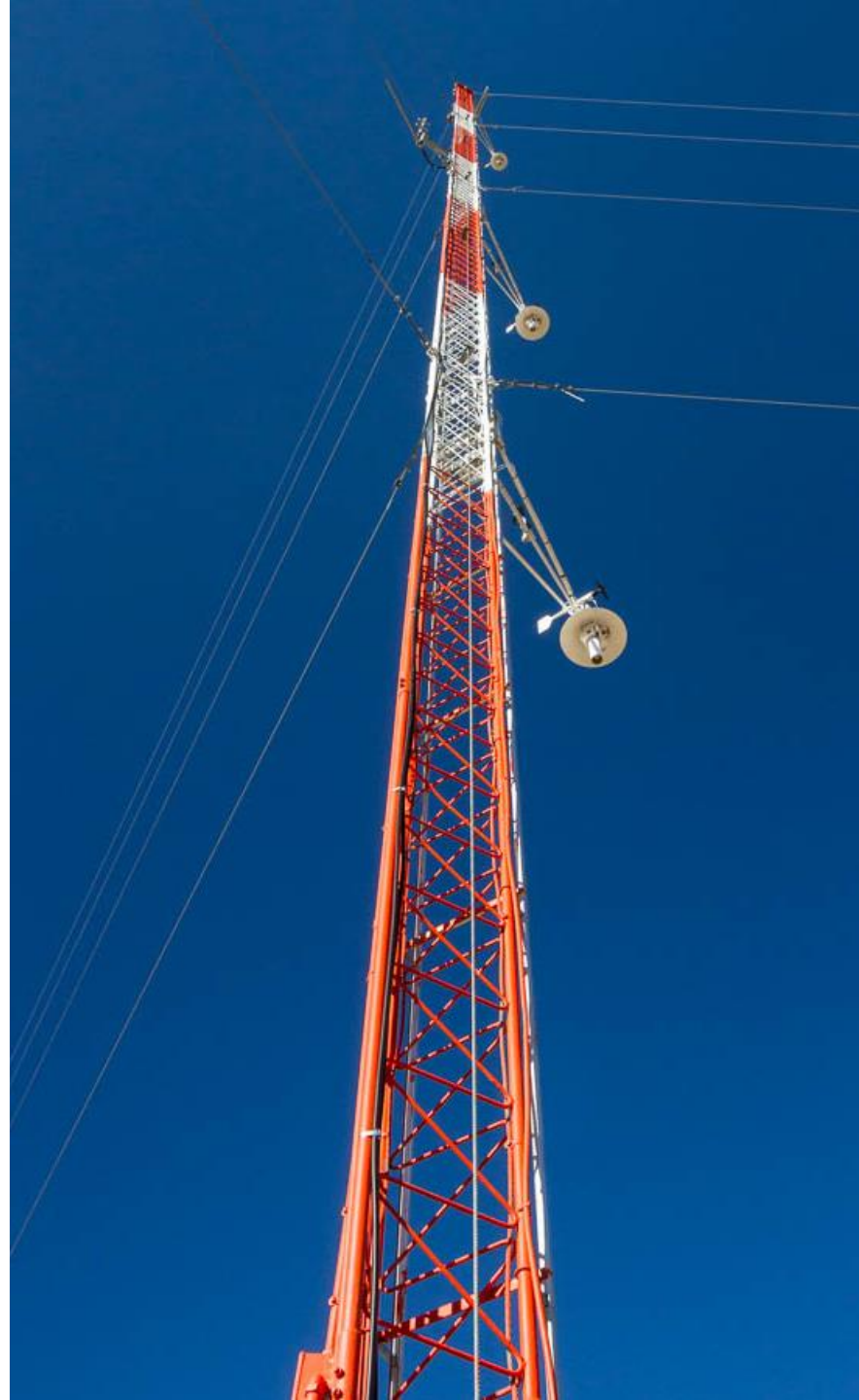


What We Do

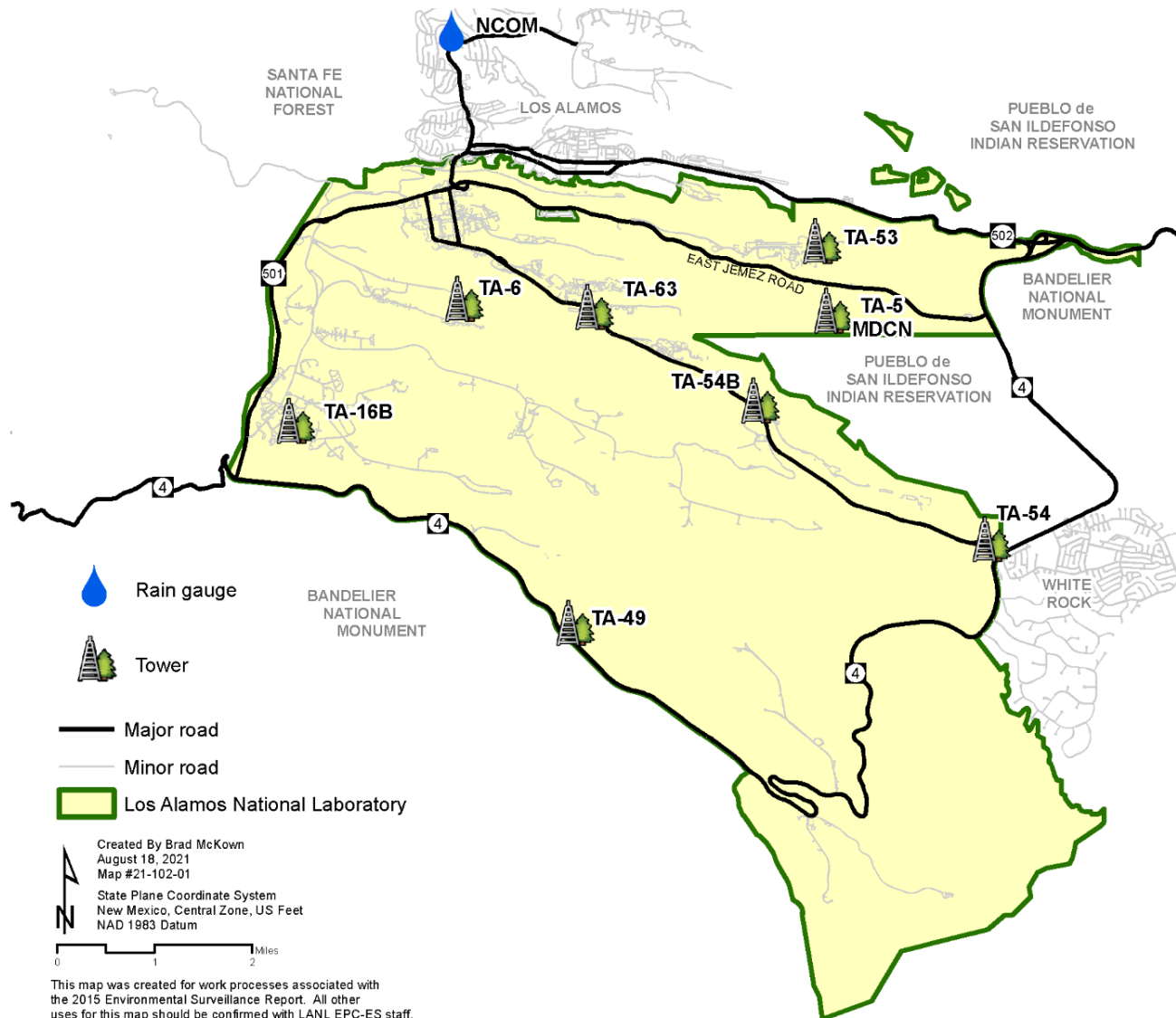
- Maintain calibrated instrumentation and quality assured data
- Provide data and data analysis to many LANL organizations
- Provide weather forecasting to support LANL operations

Our Network

- 8 towers
- 2 trailer towers
- 5 rain gauges
- SODAR
- LIDAR
- Radiometer

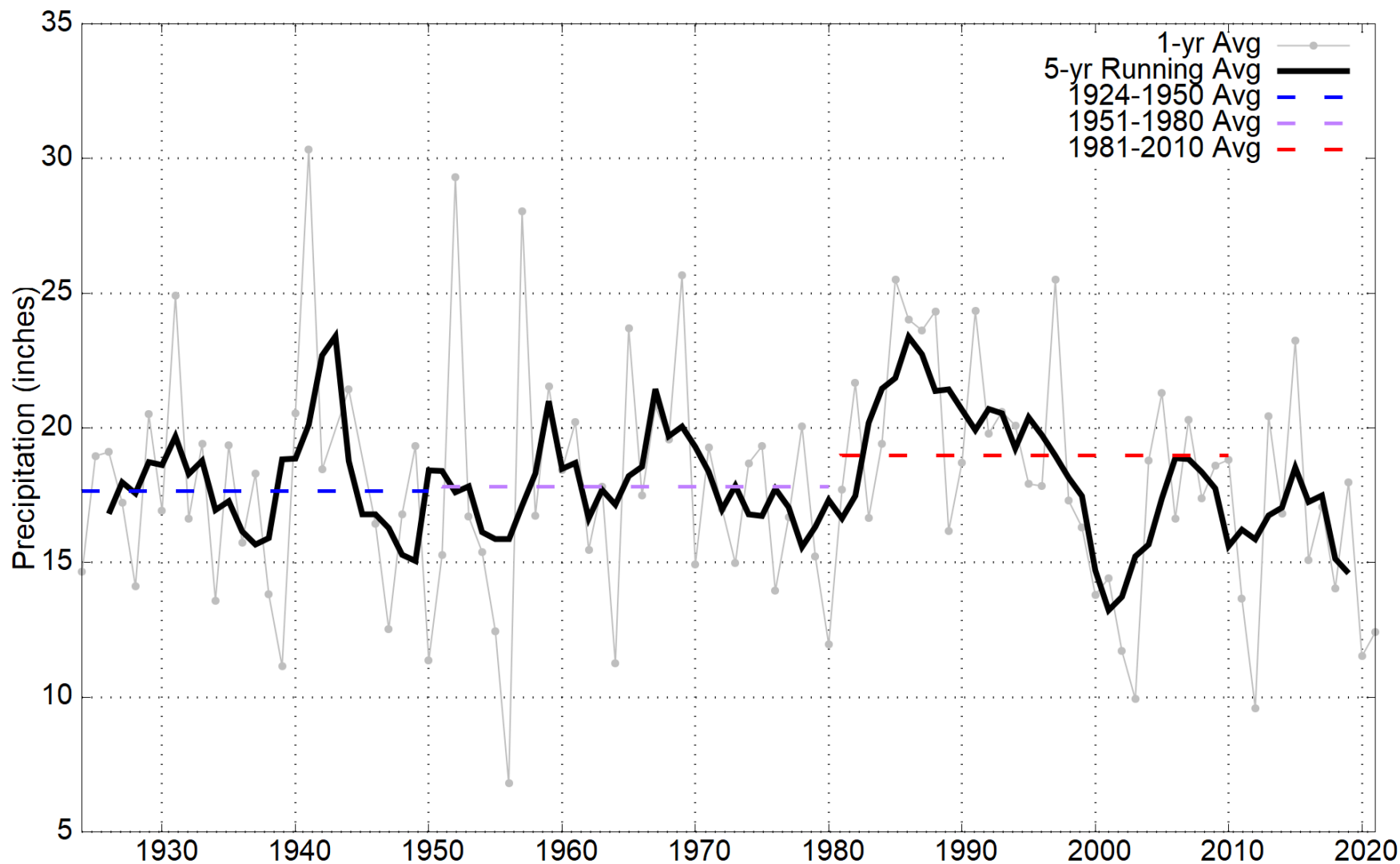


Station Locations

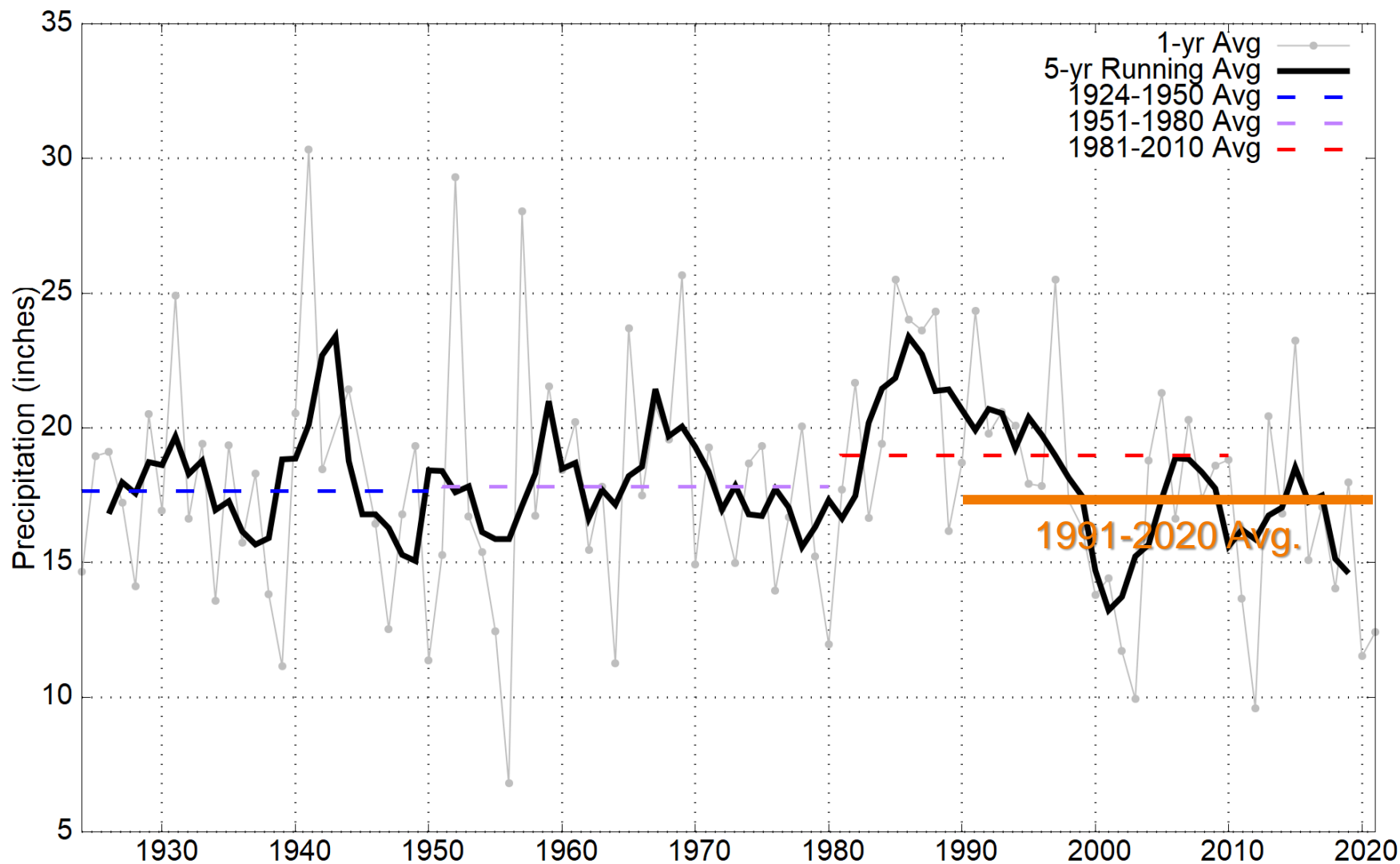


Los Alamos Climatology

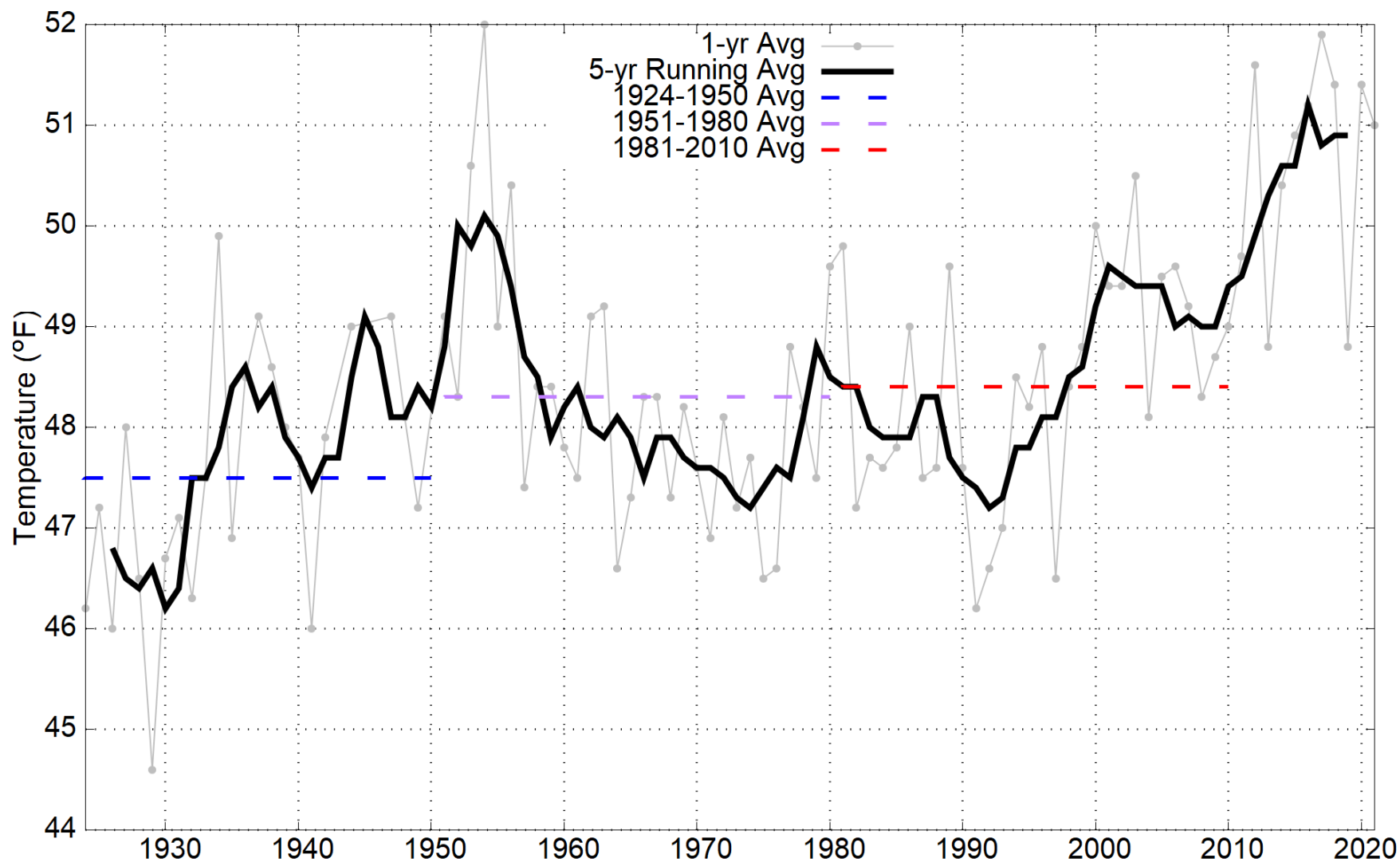
Precipitation History



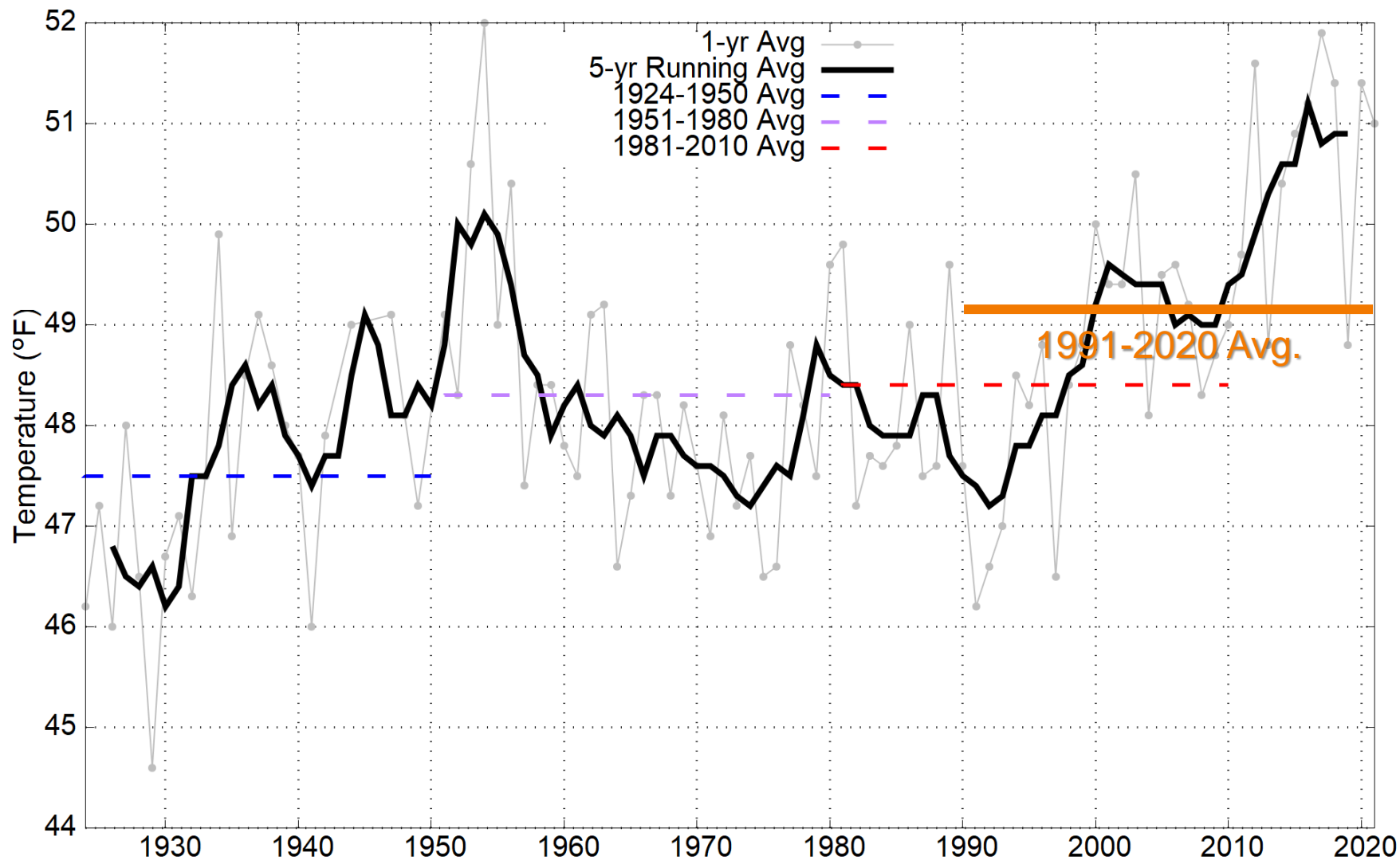
Precipitation History



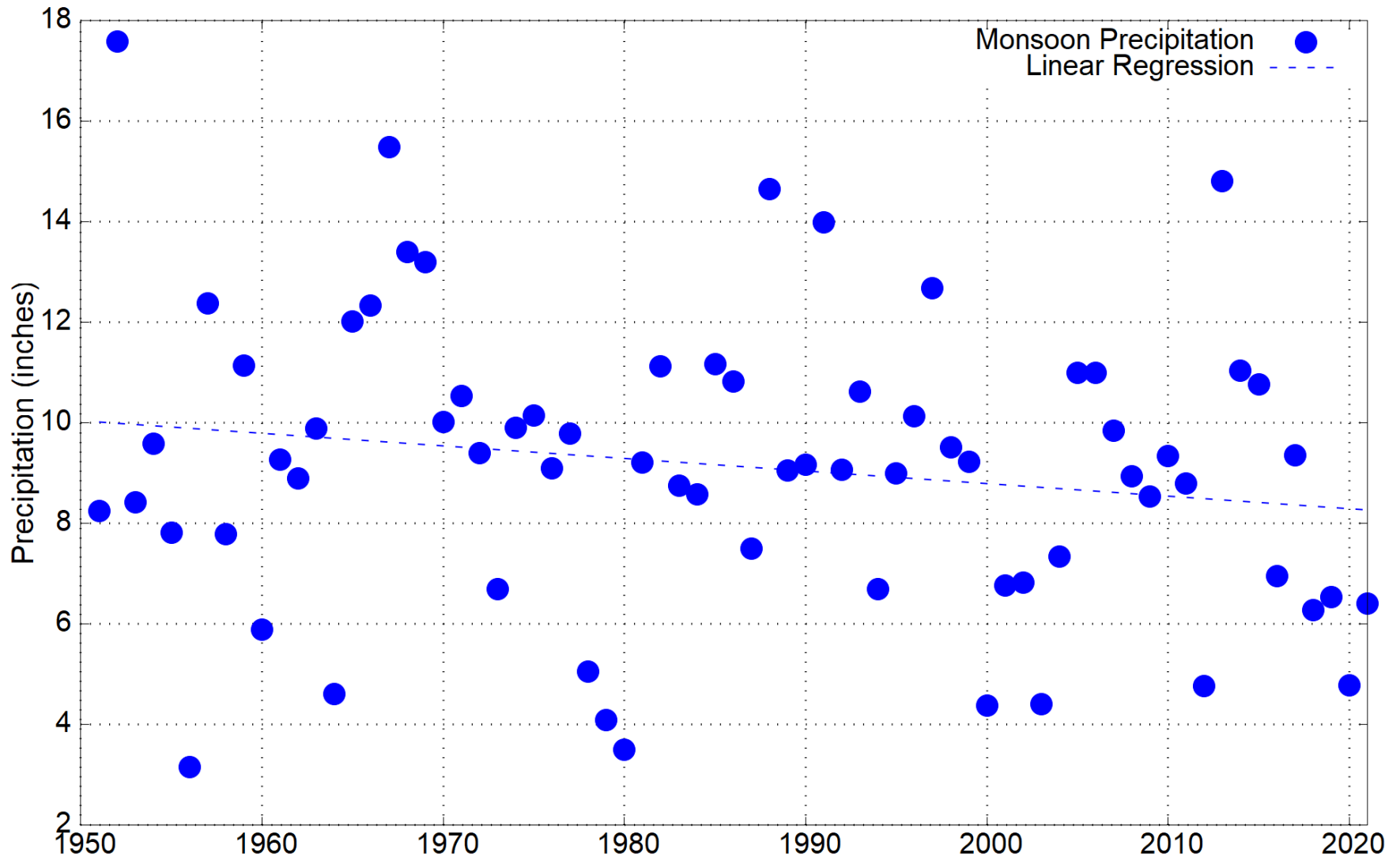
Temperature History



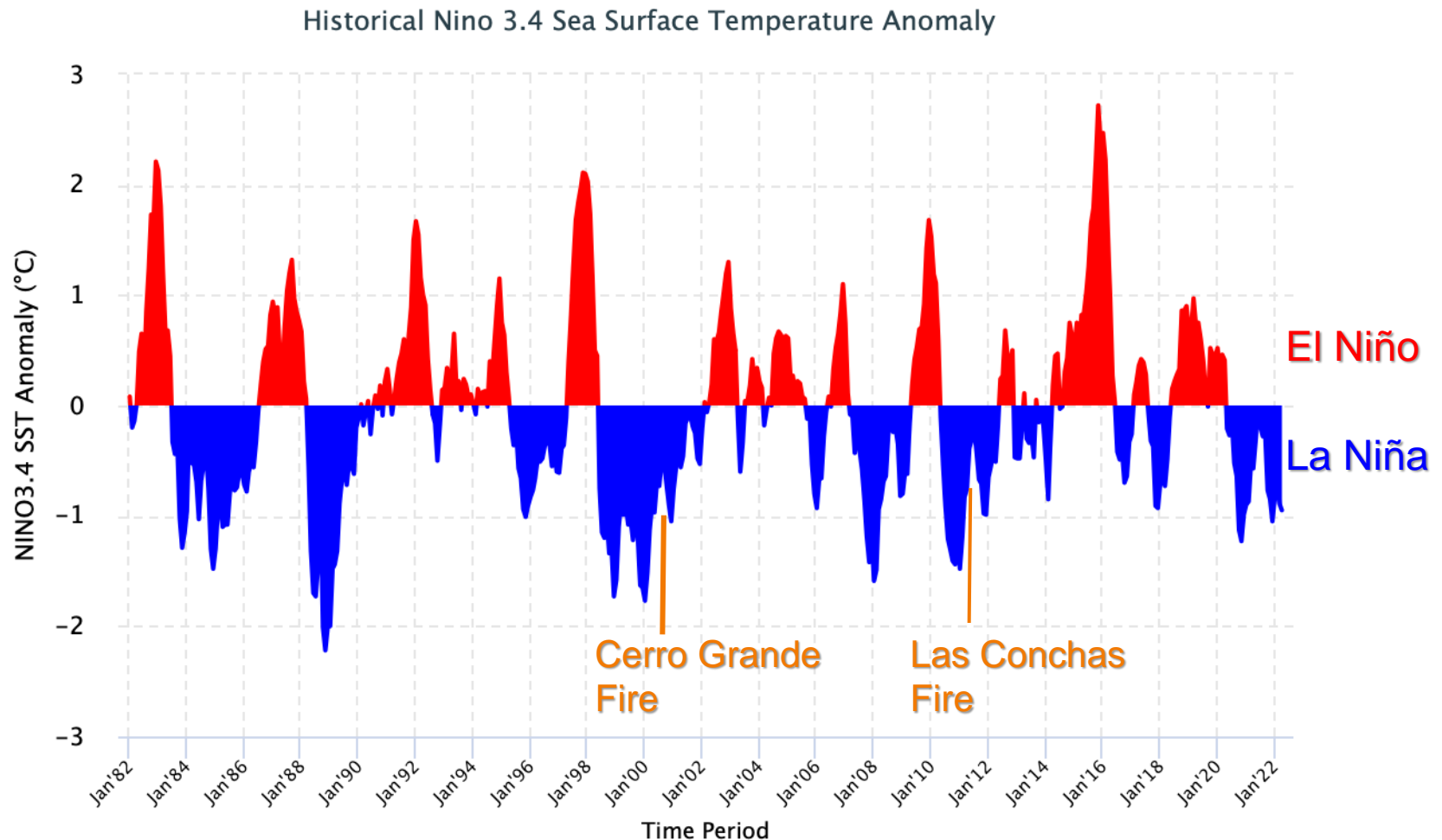
Temperature History



Monsoon Precipitation History (Jun 15 – Sep 30)

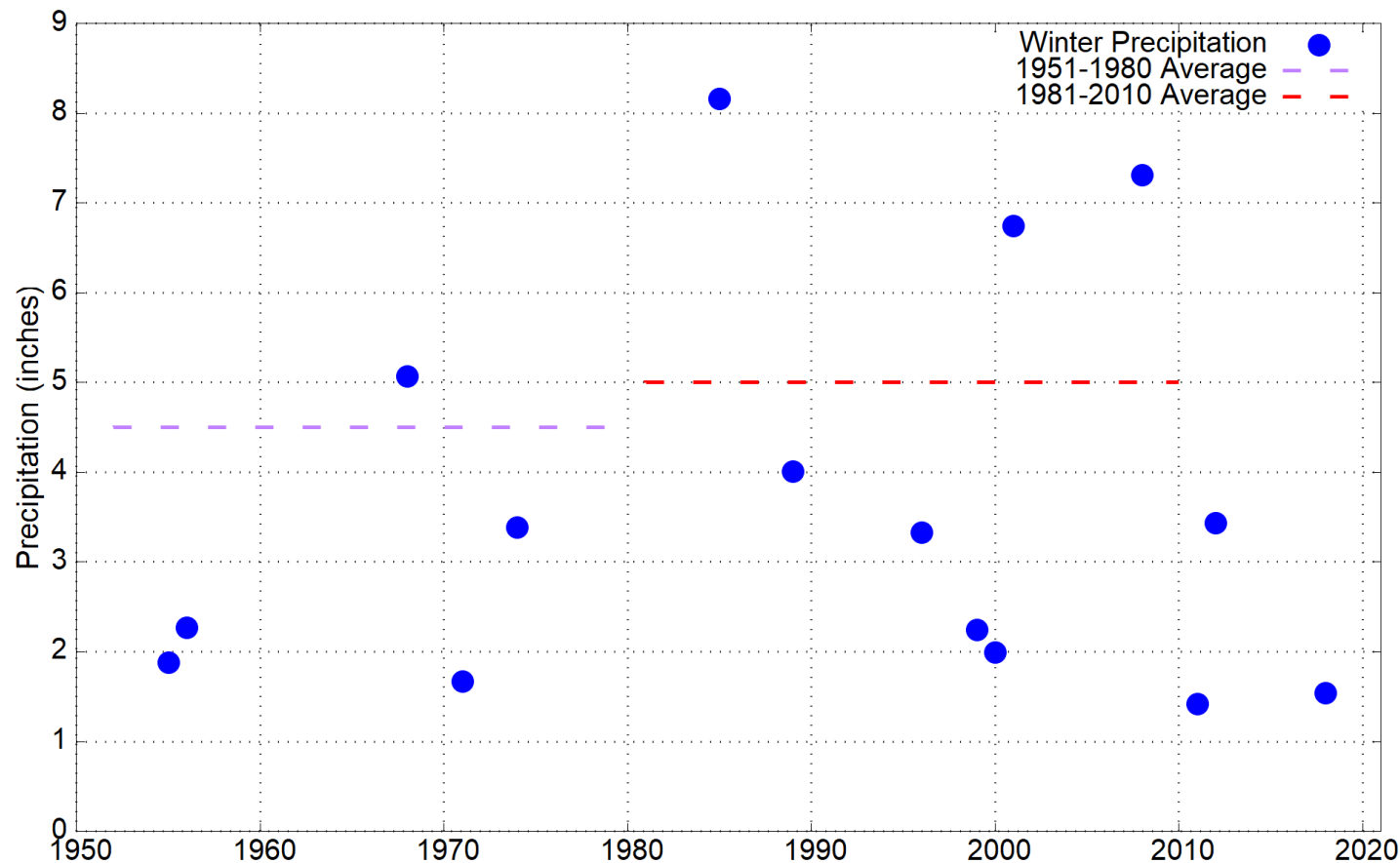


El Niño and La Niña Years History



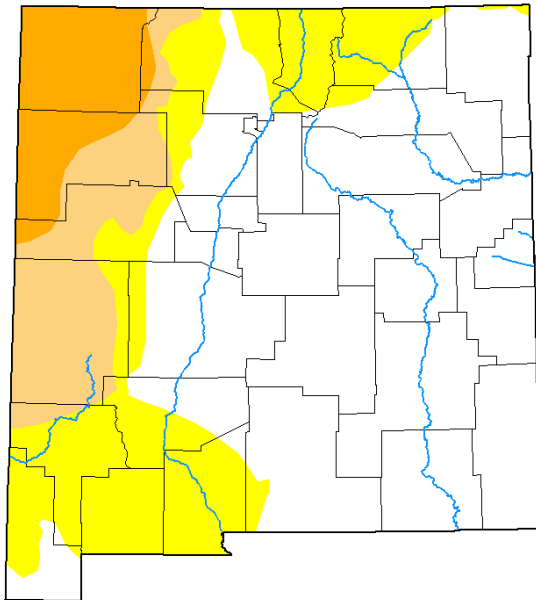
La Niña Years

- La Niña years typically result in below average winter precipitation

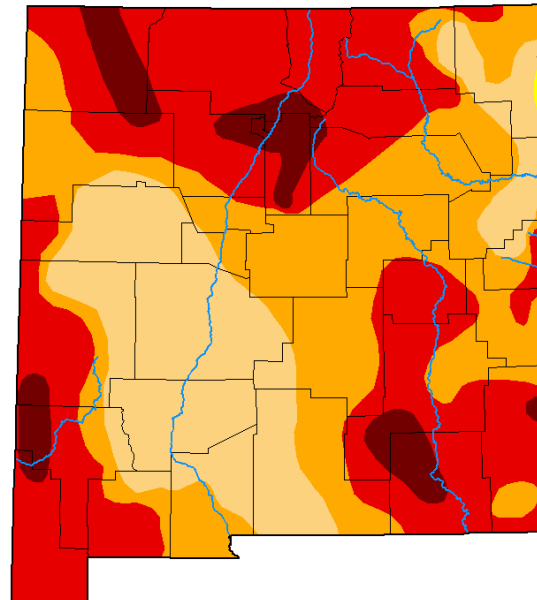


Recent Conditions

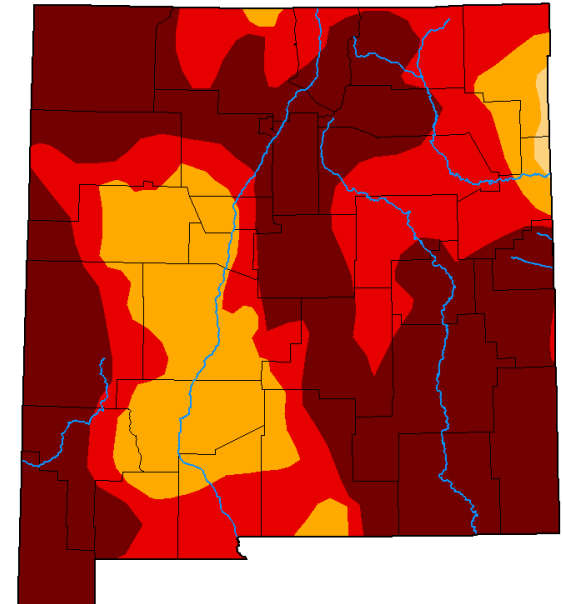
Recent New Mexico Drought (U.S. Drought Monitor)



Oct. 8, 2019



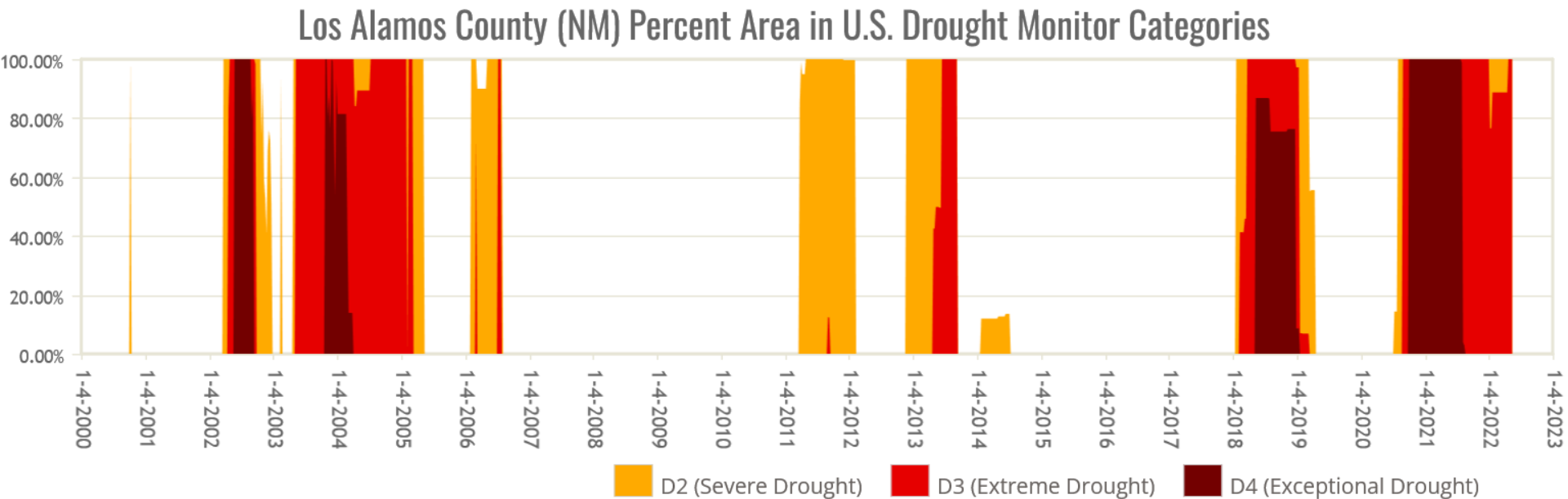
Oct. 6, 2020



Dec. 1, 2020



Historical Los Alamos County Drought



2021 Weather

Precipitation

- Only 12.41 inches (65% of normal)

Snowfall

- 33.1 inches (76% of normal)

Temperature

- 10 consecutive months of above average temperatures
 - 21 of last 22 months above average temperatures

January to March 2022 Weather

Precipitation

- Below average precipitation every month (81% of normal)

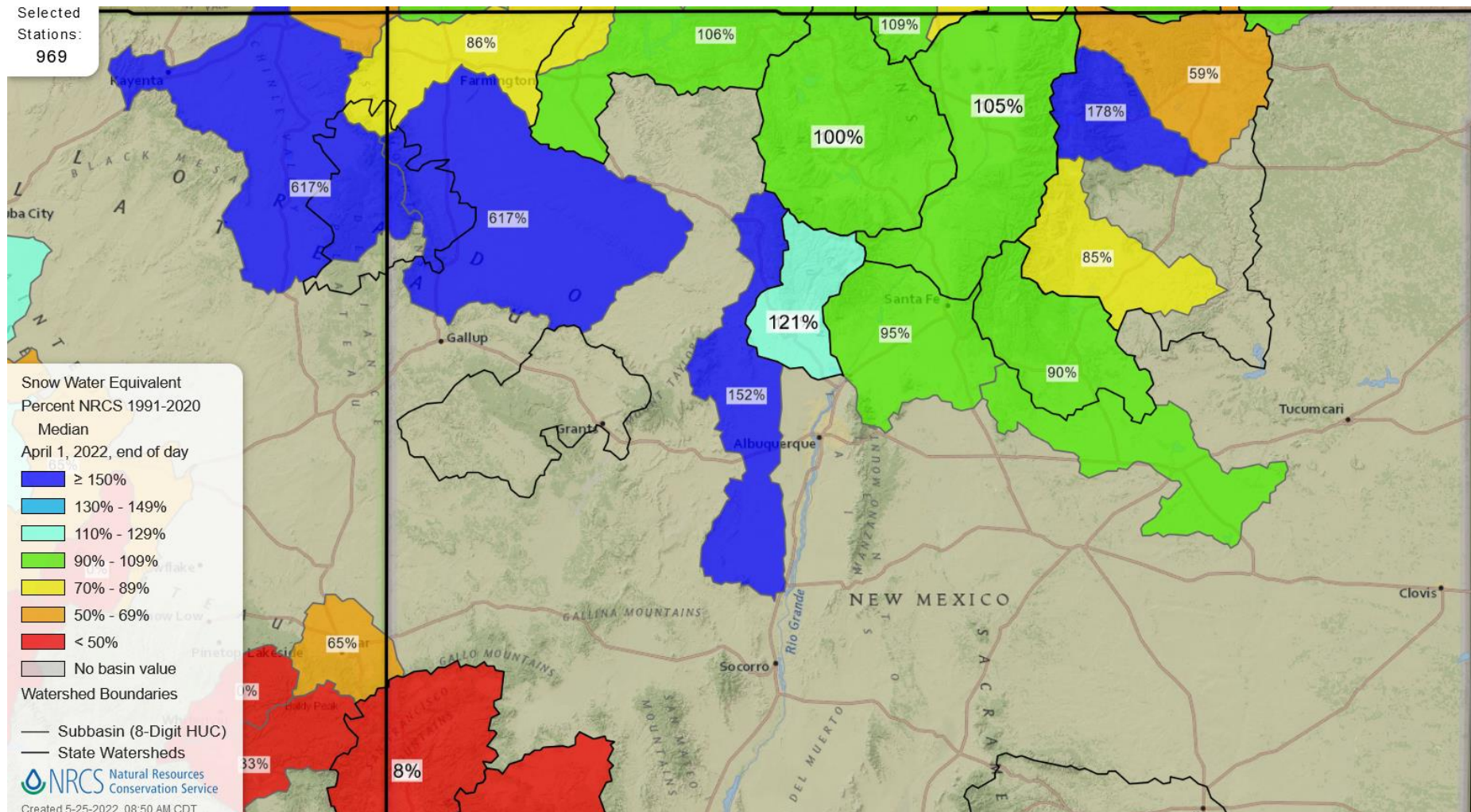
Snowfall

- 2021/2022 winter: 30.4 inches (76% of normal)
 - Previous winters: 79% and 54% of normal

Temperature

- Jan: Above average (1°F)
- Feb: Below average (4°F)
- Mar: Below average (<1°F)

Snow Water Equivalent as of April 1st, 2022



April 2022 Weather

Precipitation

- Only occurred on April 1st (0.06 inches)
- Below average again (62% of normal for the year)

Snowfall

- None

Temperature

- 3 – 4°F above average

Wind

- 11 days of wind gusts of 40 mph+
- Los Alamos measured 60 mph gusts on April 22nd

May 2022 Weather

Precipitation

- Only a trace on May 24

Snowfall

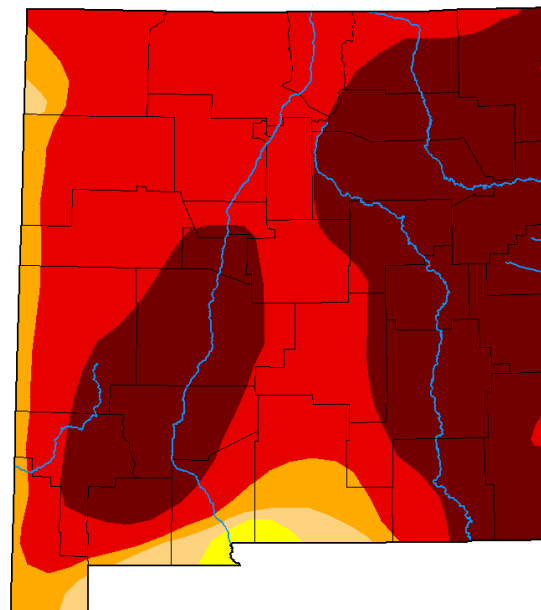
- None

Temperature

- 4 – 5°F above average

Wind

- 8 days of wind gusts 40 mph+



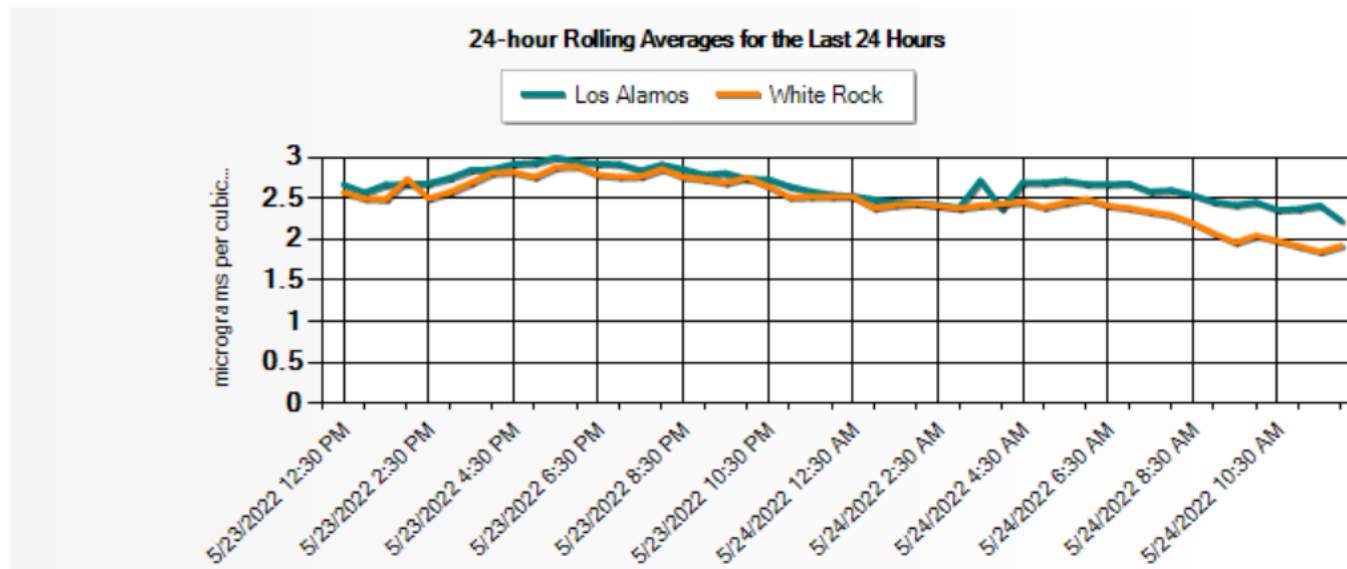
May 26, 2022

Particulate Matter Monitoring

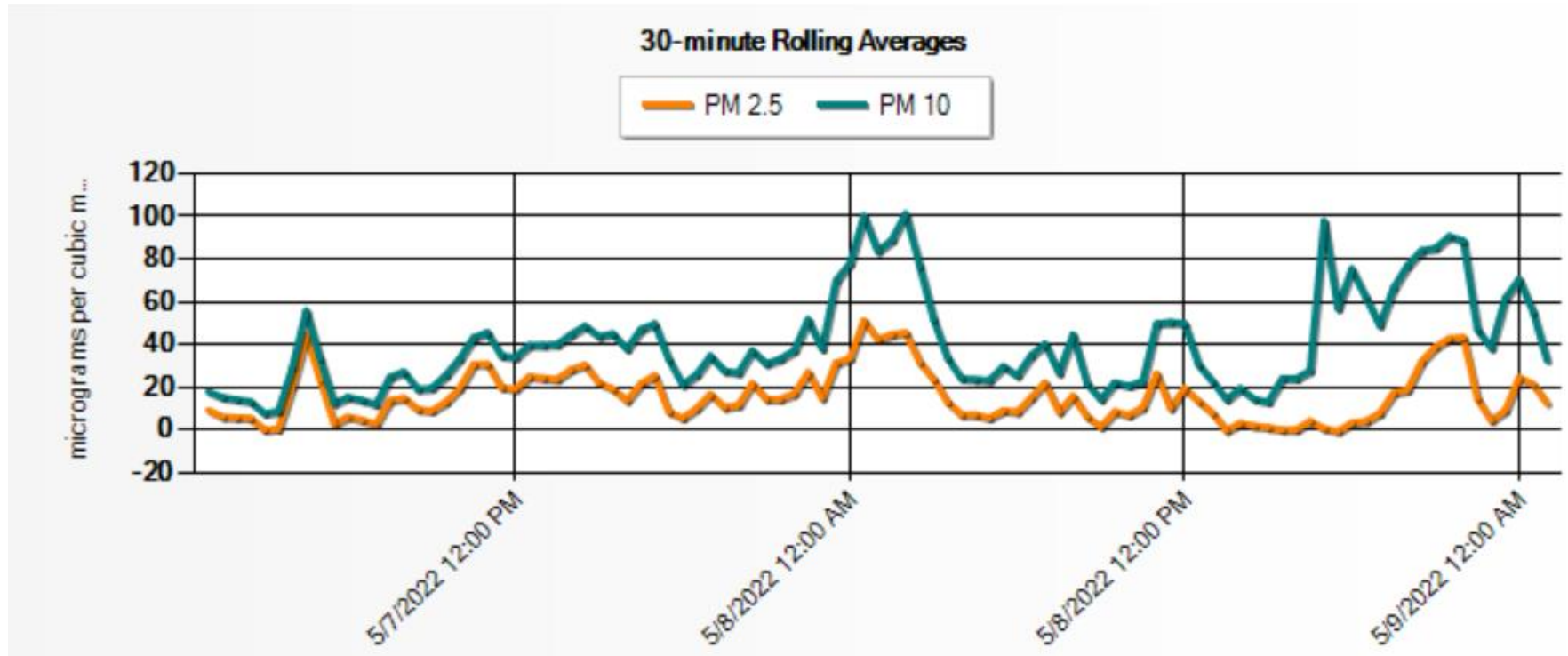
<https://envweb.lanl.gov/pm/>

Employee Smoke Alert	Los Alamos PM 2.5 24-hour Rolling Average	White Rock PM 2.5 24-hour Rolling Average
The current condition is: Good	2.2258 $\mu\text{g}/\text{m}^3$	1.9221 $\mu\text{g}/\text{m}^3$
Weather Forecast	View Los Alamos data	View White Rock data

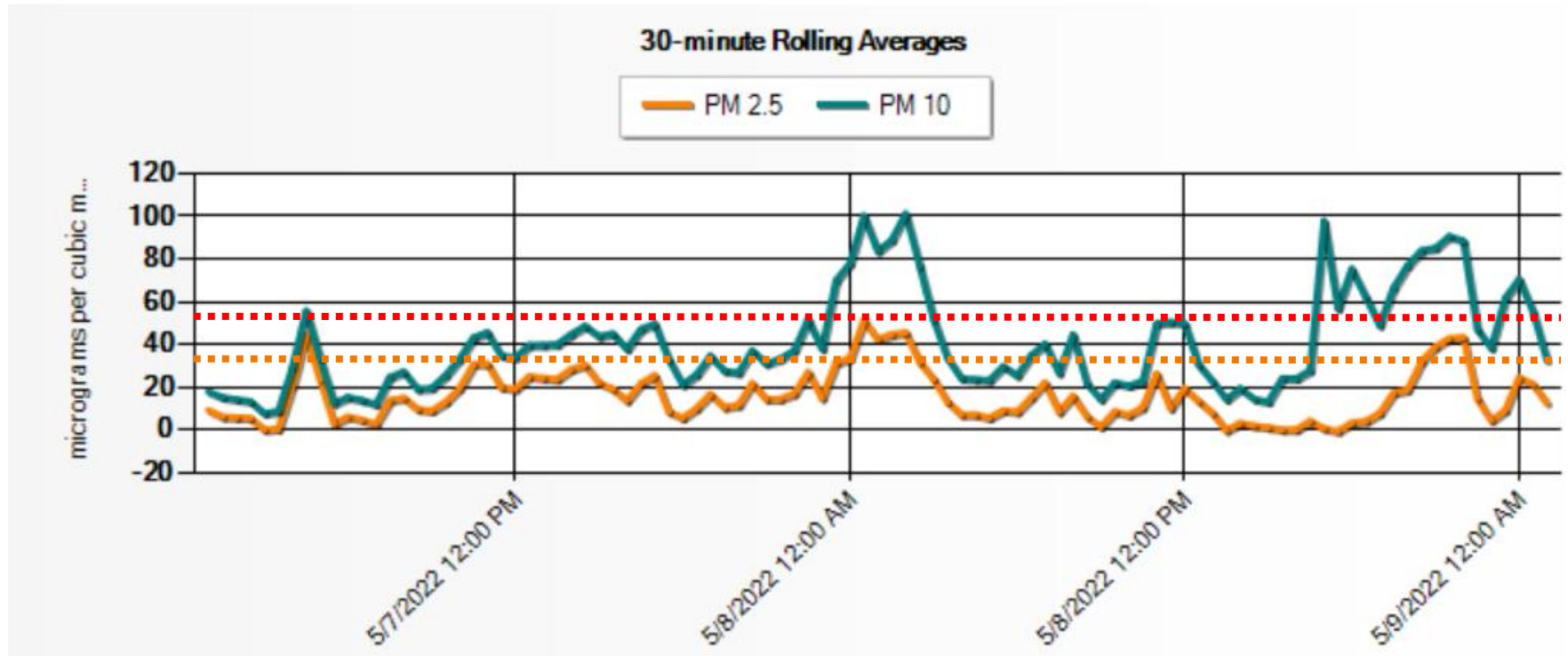
AQI is an index for reporting daily air quality. It tells you how clean or polluted your air is, and what associated health effects might be a concern for you. The AQI focuses on health effects you may experience within a few hours or days after breathing polluted air. EPA calculates the AQI for five major air pollutants regulated by the Clean Air Act.



PM_{2.5} Variability in White Rock



PM_{2.5} Variability in White Rock



- Unhealthy for all groups
- Unhealthy for sensitive groups

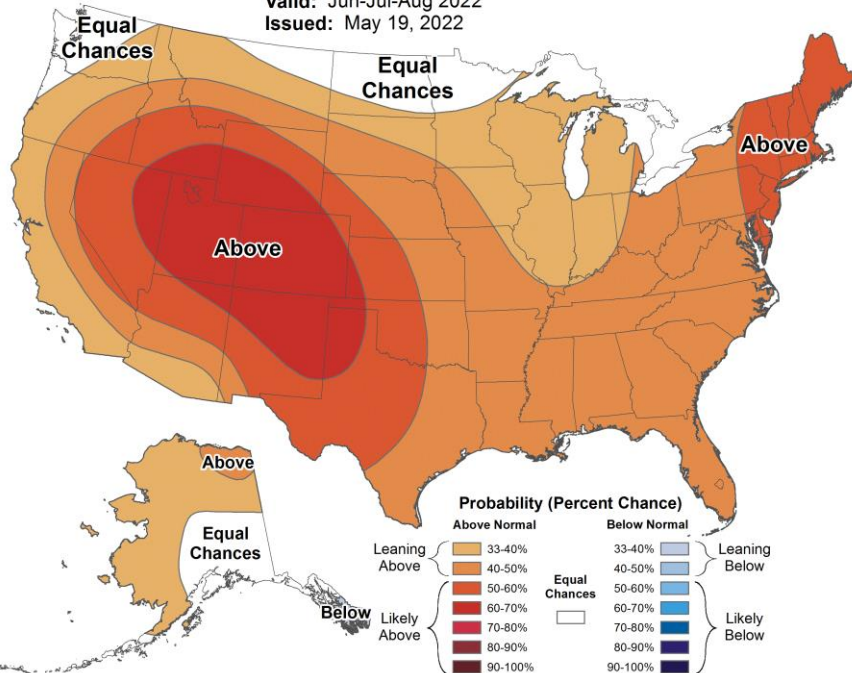
Looking Ahead

3 Month Outlook for Temperature & Precipitation



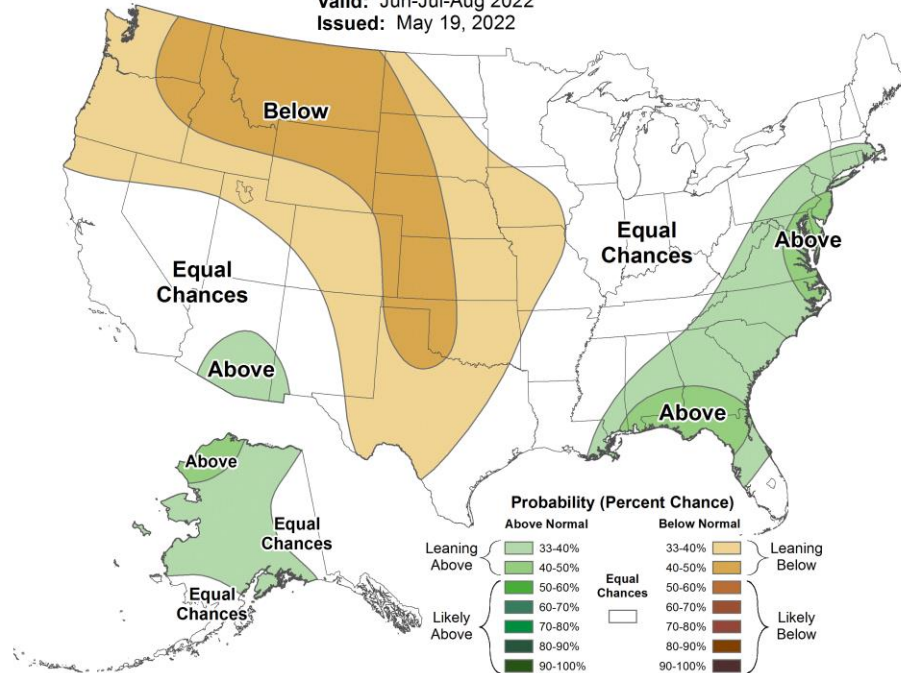
Seasonal Temperature Outlook

Valid: Jun-Jul-Aug 2022
Issued: May 19, 2022

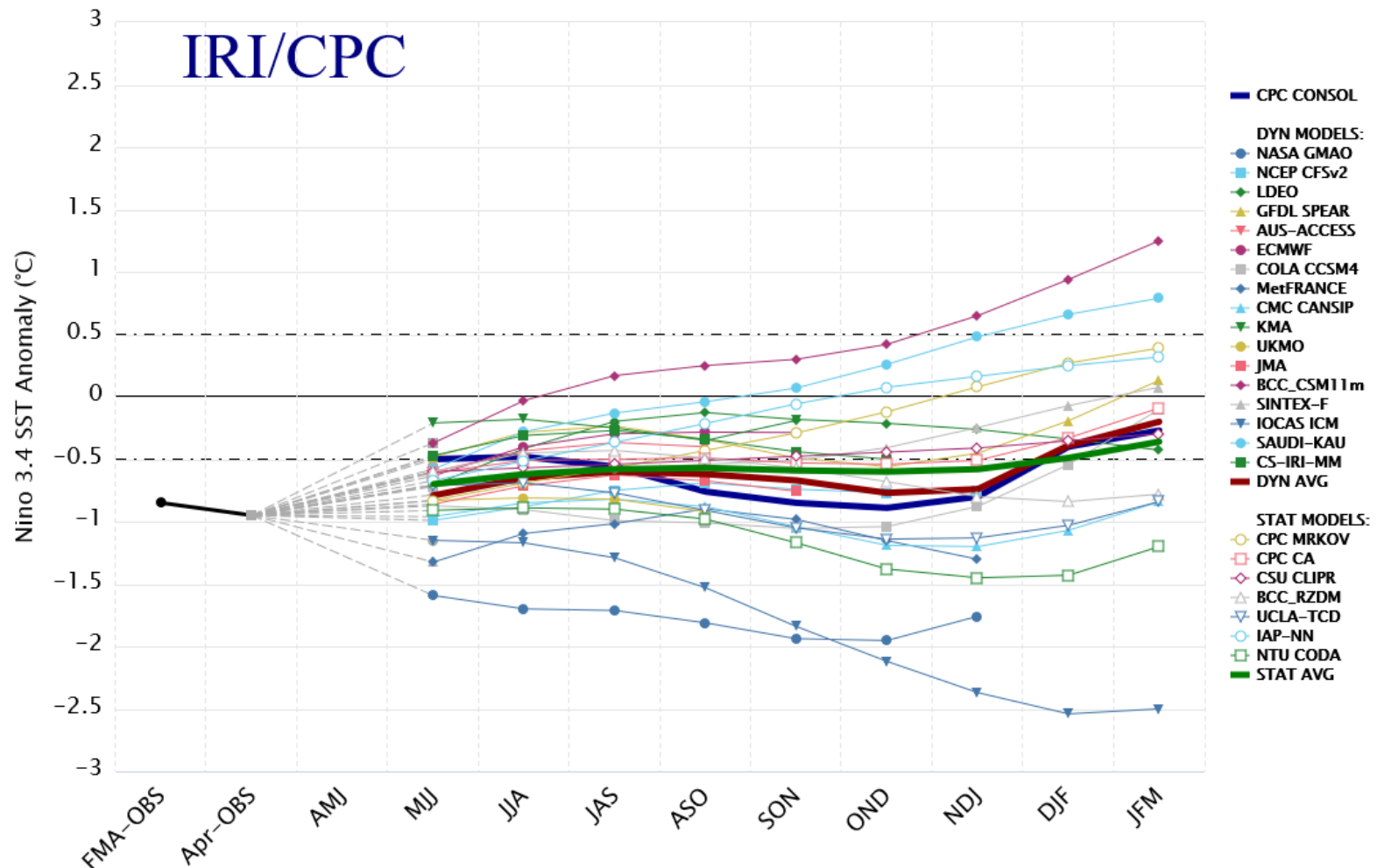


Seasonal Precipitation Outlook

Valid: Jun-Jul-Aug 2022
Issued: May 19, 2022



Climate Model Predictions for the Winter




Highcharts.com

Contact

- Access current conditions and download data on the Weather Machine at weather.lanl.gov or on the LANL homepage

Fire Danger Rating: Extreme 🔥

Traffic News Hub: 🚗



COMPUTING

EMPLOYEES

ENVIRONMENT

FINANCE

NEWS

48°F

Updated 5/25/22 11:00 AM

TOP NEWS

- Email: weather@lanl.gov